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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,596	10/02/2003	William R. Eisenstadt	5853-268	8230

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EXAMINER	
PARRIES, DRU M	

ART UNIT	PAPER NUMBER
2836	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,596	EISENSTADT, WILLIAM R.	
	Examiner	Art Unit	
	Dru M. Parries	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,17-27,29 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,17-27,29 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4, 17 and others have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 12 is objected to because of the following informalities: it lacks antecedent basis (i.e. "said at least one intermediate voltage"). Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 29 is dependant on a cancelled claim. It also lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 6, 9, 10, 12, 13, 17, 19, 22, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kannan et al. (2004/0129888). Kannan teaches a plurality of integrated

circuits (10-12, among others) on a board (Fig. 1). The integrated circuits require a plurality of different supply voltage levels and signals at respective inputs for operation. He also teaches DC-DC converter (6) for receiving a supply voltage and producing a plurality of amplified output voltage pulses (of varying amplitude). He also teaches a processing circuit (9) for receiving an output voltage from the converter and a time-varying input signal (from 6 and/or 8A) and produces a modified time-varying signal, in the form of voltage pulses (of varying amplitude). The varying parameter is the voltage level. He also teaches a plurality of output voltages (from 6) coupled to a plurality of integrated circuits (9-12) and a plurality of outputs (from 9) coupled to said inputs of a plurality of integrated circuits (10-12). The processing circuitry (9) comprises analog circuitry. The time-varying input is an analog input. He also teaches that a parameter (voltage) of the time-varying signal that is modified is programmable via passive elements (7 & 8; [0088]). One could say that everything to the right of the detector (1) is a peripheral element (i.e. the passive elements).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1, 2, 5 and 7-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Suzuki (JP 2002-101558). Suzuki teaches a DC-DC converter (10, all DC-DC converters) receiving a supply voltage (3a, 3b, etc.) and producing a plurality of output voltages (some greater than the input voltage, depending upon signals from 12). He also teaches processing circuitry (11) that receives at least one output voltage from the converter and a time-varying signal (pulses from 12), and outputs a modified time-varying signal and a plurality of output voltages at different

levels (depending upon signals from 12). He also teaches the processing circuitry comprising analog (inputs from converter) and digital (inputs from 12) circuitry.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 17, 18, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (JP 2002-101558). Suzuki teaches the power circuit described above. Suzuki teaches the outputs (4) being wall outlets (Fig. 2). He fails to teach a plurality of integrated circuits being supplied with different supply voltages from the DC-DC converter and processing circuitry. The Examiner takes Official Notice that there are a plurality of devices (that include integrated circuits on a circuit board) that are plugged into DC outlets (such as the one in Fig. 2b of Suzuki). It would have been obvious to one of ordinary skill in the art at the time of the invention to have these devices plugged into the DC wall outlet of Suzuki so that the output power of Suzuki's invention doesn't go unused.

11. Claims 4, 11, 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (JP 2002-101558) as applied to claims 1 and 17 above, and further in view of Nork et al. (6,411,531) and Roohparvar et al. (6,633,494). Suzuki teaches the power circuit described above. Suzuki also teaches the processing circuitry (11) having an output buffer (13). Suzuki fails to teach the inner workings of his DC-DC converter. Nork teaches a DC-DC converter receiving opposite phase clock signals (V_{CLK} & V_{CLKB} via oscillator 25; Fig. 3A&B) and having

a buffer on its output (9 and 12). Nork fails to teach the voltage on those (HIGH/LOW) signals. Roohparvar teaches a clock with a HIGH signal that is representative of the supply voltage, and a LOW signal that is representative of ground (Col. 6, lines 26-28). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Roohparvar's HIGH and LOW voltage values into Nork's oscillator, and implement Nork's DC-DC converter into Suzuki's invention since Nork and Suzuki were silent on those specific characteristics and Roohparvar and Nork, respectively, teach an instance that is known in the art. Making these modifications would also create an input buffer (from Nork's invention) for the processing circuitry in Suzuki's invention.

12. Claims 14 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (JP 2002-101558) as applied to claims 1 and 17 above, and further in view of Maksimovic et al. ("Switched-Capacitor DC-DC Converters for Low-Power On-Chip Applications"). Suzuki teaches a power circuit as described above. He fails to explicitly teach the type of DC-DC converter used. Maksimovic teaches a switched capacitor based DC-DC converter (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to use Maksimovic's switched capacitor based DC-DC converter as the converter in Suzuki's invention because it allows for greater efficiency in the circuit and it is known to work in the art and Suzuki was silent as to the type of converter used.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on M-Th from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

10-27-2006

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